

From 11 a. m. the barometer began to rise, and at 11.50 a. m. it read 29.5 (749.3), wind wsw., force 10; at 0.47 p. m. (near N. 43° 15', W. 57° 20'), wind decreasing; 3.47 p. m., wind w. by s., force 8, barometer 29.7 (754.4); 7.51 p. m., wind wnw., force 6, barometer 29.94 (760.5); a very heavy sea prevailed during the storm. The s. s. "Rotterdam," reported, 4 a. m., barometer 29.2 (741.7), wind sw., force 10, perfect storm, high cross sea; 7 a. m., barometer 29.03 (737.3), wind w., force 9, gradually decreasing; the wind changed during the time of the heaviest gusts; the upper atmosphere was clear, but below were dense clouds of haze or scud, rendering it impossible to see ahead; the sea was white with foam and fearfully high; lightning was observed in the southwest and west. At noon the ship's position was N. 42° 45', W. 59° 24'.

During the day the storm continued its northeastward course, maintaining all its fury, and by the 31st it was probably central near N. 52°, W. 36°. The s. s. "Arizona" in N. 47° 55', W. 45° 22', reported 12.08 p. m. (Greenwich mean time), barometer 30.09 (764.3), wind sse., force 4, barometer falling rapidly and wind increasing; 9 p. m., barometer 29.42 (747.3), wind s., force 7; 2 a. m. of the 31st, the wind gradually hauled to wsw., force 9, and the barometer read 29.32 (744.7), very heavy sea; 2.30 a. m., wind suddenly hauled into ne., force 7, and the barometer rose even more rapidly than it had fallen, the weather became fine but the high westerly sea kept up. At 12.08 p. m. of the 31st the s. s. "Waesland," in N. 49° 15', W. 36° 34', reported barometer 29.23 (742.4), wind nnw., force 10, high confused sea. This storm was probably identical with that reported by vessels between W. 30° and the British coasts on September 1st and 2d, and appears to have lost none of its violence on nearing the coasts.

OCEAN ICE.

Chart ii. also exhibits the southern and eastern limits of icebergs in the north Atlantic during the month of August, 1883. This chart is based on reports communicated by shipmasters to this office, reports furnished through the co-operation of the "New York Herald Weather Service," and other data published in the "New York Maritime Register."

The small number of vessels reporting icebergs during August, 1883, seems to indicate that these dangers to navigation are rapidly disappearing from the ice-region of the north Atlantic. The easternmost icebergs reported during the month were observed near the forty-fourth meridian, the southern limits being about N. 43° 30'.

Compared with the chart for the preceding month, (July, 1883,) a slight change is shown in the extent of the ice-region, the eastern limit having moved about 1° to the eastward, while the southern limit is also about 1° further north than in last month.

Icebergs were reported as follows:

2d.—Ship "Hagarstown," in N. 43° 27', W. 50° 25', saw a very large iceberg.

3d.—S. S. "Frisia," in N. 45° 51', W. 47° 53', passed an iceberg about one hundred and twenty feet high; s. s. "Grecian Monarch," in N. 45° 56', W. 49° 0', passed two icebergs; s. s. "Grecian," in N. 53° 6', W. 50° 0', passed a large iceberg. Saw none east of this.

5th.—S. S. "Abyssinia," in N. 45° 46', W. 48° 54', passed a large iceberg bearing ssw., distant about six miles.

6th.—S. S. "Schiedam," in N. 45° 30', W. 48° 54', passed a large iceberg.

7th.—S. S. "Oder," in N. 44° 55', W. 49° 4', passed a large iceberg; s. s. "Cassius," in N. 44° 12', W. 53° 40', passed an iceberg two hundred feet high.

8th.—Bark "Diamant," in N. 44° 36', W. 48° 40', passed a large iceberg; s. s. "Donau," in N. 44° 22', W. 48° 57', passed an iceberg two hundred and sixty feet high.

10th.—S. S. "France," in N. 43° 26', W. 51° 41', passed a large iceberg.

11th.—Bark "Carpasian," about ninety miles ene. of Saint John's, Newfoundland, passed a number of icebergs.

23d.—Ship "Amelia," in N. 48°, W. 44°, passed several large icebergs; s. s. "Grecian," in N. 53° 0', W. 50° 45', saw a large iceberg; from there to Belle Isle, passed only five icebergs; Straits quite clear.

28th.—S. S. "Clintonia," in N. 48° 40', W. 45° 0', passed two large icebergs.

TEMPERATURE OF THE AIR.

[Expressed in degrees, Fahrenheit.]

The distribution of mean temperature over the United States and Canada, for the month of August, 1883, is exhibited on chart iii., by the dotted isothermal lines.

In the first column of the following table are shown the normal temperatures of August in the several districts, as determined from the Signal-Service records; the second column shows the mean temperature of August, 1883, and the third column shows the departures of August, 1883, from the normal:

Average Temperatures for August, 1883.

Districts.	Average for August. Signal-Service observations.		Comparison of Aug., 1883, with the average for several years.
	For several years.	For 1883.	
New England	69.5	68.1	1.4 below.
Middle Atlantic states.....	73.8	72.3	1.5 below.
South Atlantic states.....	79.3	78.2	1.1 below.
Florida peninsula	82.2	82.9	0.7 above.
Eastern Gulf	79.6	79.5	0.1 below.
Western Gulf	81.6	81.1	0.5 below.
Tennessee	77.2	74.6	2.6 below.
Ohio valley.....	75.9	72.1	3.8 below.
Lower lakes	70.1	66.5	3.6 below.
Upper lakes	67.3	63.5	3.8 below.
Extreme northwest.....	66.3	62.7	3.6 below.
Upper Mississippi valley.....	74.6	70.2	4.4 below.
Missouri valley.....	75.1	70.9	4.2 below.
Northern slope.....	69.0	66.7	2.3 below.
Middle slope.....	72.5	72.9	0.4 above.
Southern slope.....	79.6	80.2	0.6 above.
Southern plateau.....	78.5	78.3	0.2 below.
North Pacific.....	64.4	62.4	2.0 below.
Middle Pacific.....	70.5	69.7	0.8 below.
South Pacific.....	80.6	79.9	0.7 below.
Mount Washington, N. H.	47.5	43.8	3.7 below.
Pike's Peak, Colo.	39.0	38.8	0.2 below.
Salt Lake City, Utah	74.4	76.4	2.0 above.
Brownsville, Texas.....	83.1	83.6	0.5 above.

The mean temperature for August is below the normal over the whole country, except in Florida and over an area extending from southern Texas northwestward to Utah, where it is slightly above the normal, and in the east Gulf states, where a normal condition has prevailed. The deficiencies are most marked from the lower lake region and Ohio valley westward to the Missouri valley and extreme northwest, where they vary from 3° 6' in the lower lake region and extreme northwest to 4° 4' and 4° 2' in the upper Mississippi and Missouri valleys, respectively. In Tennessee and in the North Pacific coast region, the deficiencies are 2° 6' and 2°, respectively; along the Atlantic coast they vary from 1° 1' to 1° 5'; and in the west Gulf states and California they are less than 1°.

In the middle and southern slopes, at Salt Lake City, Utah, and at the stations on the coast of Texas, the mean temperature has been slightly above the normal for August.

The following are some of the highest and lowest monthly mean temperatures reported from the Signal-Service stations:

Stations reporting highest.	Stations reporting lowest.
Yuma, Arizona..... 91.0	Pike's Peak, Colorado..... 38.8
Galveston, Texas..... 84.6	Mount Washington, New Hampshire..... 43.8
Key West, Florida..... 84.3	Cape Mendocino, California..... 53.6
Camp Thomas, Arizona..... 84.1	San Francisco, California..... 57.9
Cedar Keys, Florida..... 83.7	Marquette, Michigan..... 61.0
Indianola, Texas..... 83.6	Olympia, Washington..... 61.3
Brownsville, Texas..... 83.6	Alpena, Michigan..... 61.7
New Orleans, Louisiana..... 83.3	Escanaba, Michigan..... 61.9
Mobile, Alabama..... 82.0	Mackinaw City, Michigan..... 62.0
Fort Concho, Texas..... 81.9	Deadwood, Dakota..... 62.5

The general distribution of mean temperature for August,

and the districts of maximum departures from the normal in each year, beginning with 1873, are as follows:

Districts.	Maximum departures.	Year.	Remarks.
	0		
		1873...	From 2° to 5° below the normal in New England, the middle states, and lower lake region; about 3° above the normal in the upper lake region, upper Mississippi and lower Missouri valleys.
Missouri valley.....	+ 3.5		
Gulf states.....	+ 3.0		
Ohio valley and Tennessee.....	+ 2.0		
Saint Lawrence valley.....	+ 3.0	1874...	Normal in the upper Mississippi valley and in Minnesota; above the normal in the Missouri and Ohio valleys and Gulf states; below the normal in the Saint Lawrence valley, lake region, and on the Atlantic and Pacific coasts.
Middle Atlantic states.....	+ 2.6		
Pacific coast.....	- 2.2		
New England.....	+ 1.5		
Lower Missouri valley.....	+ 4.6		
Upper Mississippi valley.....	- 4.0	1875...	Below the normal in all districts except in New England.
Ohio valley and Tennessee.....	- 3.4		
Eastern Gulf.....	- 3.2		
Saint Lawrence valley.....	+ 2.9		
Lake region.....	+ 2.3		
Middle Atlantic states.....	+ 2.0	1876...	Normal in the upper Mississippi and Missouri valleys and in Minnesota; below the normal in the Gulf states and on the Pacific coast; above the normal in the districts east of the Mississippi river north of Tennessee and North Carolina.
New England.....	+ 1.9		
Pacific coast.....	- 2.5		
Gulf states.....	- 1.0		
New England.....	+ 2.0		
Lower lakes.....	+ 1.9		
Middle Atlantic States.....	+ 1.6	1877...	Slightly below the normal in the upper Mississippi and Ohio valleys; above the normal in all other parts of the country.
Upper lakes.....	+ 1.5		
Ohio valley.....	- 0.5		
Rocky mountain stations.....	+ 3.4		
Upper lakes.....	+ 2.9		
Minnesota.....	+ 2.7	1878...	Normal on the Pacific coast and in New England; slightly below the normal in the Saint Lawrence valley; above the normal in all other districts.
South Atlantic states.....	+ 2.3		
Ohio valley and Tennessee.....	+ 2.8		
Saint Lawrence valley.....	- 0.8		
Northern slope.....	+ 1.2		
Western plateau.....	+ 1.0		
Saint Lawrence valley.....	+ 4.0	1879...	Above the normal in the northern slope and in the districts west of the Rocky mountains; below the normal in all other districts except normal in Florida.
Rio Grande valley.....	- 3.2		
Eastern Gulf.....	- 2.9		
Ohio valley and Tennessee.....	+ 1.0		
Upper Mississippi valley.....	+ 0.7		
Rio Grande valley.....	- 6.2	1880...	Normal in the south Atlantic states; slightly above the normal in the Ohio, upper Mississippi and lower Missouri valleys; below the normal in all other districts.
Upper Missouri valley.....	- 4.2		
Northern slope.....	- 3.9		
Northern plateau.....	- 3.3		
Western Gulf.....	+ 3.6		
Middle slope.....	+ 3.4		
Minnesota.....	+ 3.3	1881...	Below the normal in the northern slope and west of the Rocky mountains; above the normal in all other districts, except slightly below in Florida.
Northern plateau.....	+ 5.6		
North Pacific coast.....	- 3.5		
Middle Pacific coast.....	- 3.1		
South Pacific coast.....	+ 1.0		
Northern plateau.....	+ 1.5		
Northern slope.....	+ 1.2	1882...	Normal in the middle and south Atlantic states and Florida; slightly above the normal in New England, the extreme northwest, northern slope, southern California, and in the northern and middle plateau districts; below the normal in all other parts of the country.
Southern slope.....	- 6.6		
Western Gulf.....	- 3.3		
Rio Grande valley.....	- 3.2		
Tennessee.....	- 3.0		

DEVIATIONS FROM MEAN TEMPERATURE.

The departures exhibited by the reports from the regular Signal-Service stations are shown in the table of average temperatures for August, 1883. Voluntary observers report the following notes in connection with this subject:

Connecticut.—Southington, Hartford county: mean temperature, 65°.8, is, with the exception of that for 1874, the lowest August mean recorded during the last twenty-nine years.

Illinois.—Anna, Union county: mean temperature, 75°.1, is 2°.2 below the August mean of the last eight years.

Riley, McHenry county: mean temperature, 65°.6, is 3° below the August average of twenty-two years. The mean temperature of the summer of 1883 is 1°.9 below the summer mean of the same period.

Swanwick, Perry county: mean temperature, 71°.1, is 5° below the August normal.

Indiana.—Vevay, Switzerland county: mean temperature, 73°.3, is 1°.6 below the August average.

Wabash, Wabash county: mean temperature, 69°.7, is 2°.7 below the August average of seven years.

Logansport, Cass county: mean temperature, 69°.4, is 4°.8 below the August average of the last twenty-four years, and

is the lowest August mean temperature of that period, with the exception of 67°.2 in 1863, and 68°.4 in 1866.

Kansas.—Wellington, Sumner county: mean temperature, 79°.3, is 2°.3 above the August average of four years.

Lawrence, Douglas county: mean temperature, 72°.4, is 4°.55 below the average of sixteen years, and is the lowest August mean of that period.

Maine.—Gardiner, Kennebec county: mean temperature, 64°.6, is 2°.2 below the August mean of forty-seven years.

Maryland.—Fallston, Harford county: mean temperature, 70°.1, is 1°.6 below the August average of ten years.

Sandy Springs, Montgomery county: mean temperature, 69°.1, is 3°.9 below the August average of the last fifteen years, and is the coldest August of that period. The mean temperature of the summer season of 1883 is also the lowest summer mean of the last fifteen years.

New Jersey.—Freehold, Monmouth county: mean temperature, 67°.4, is 3° below the August average of eight years.

New York.—North Volney, Oswego county: mean temperature, 64°.9, is 3°.3 below the average of sixteen years, and is, with the exception of 64°.8 in 1874, the lowest August mean of the period; the highest August mean temperature, 71°.3, occurred in 1872. The mean temperature of the summer months of 1883 is 66°.0, or 1°.6 below the summer average of fifteen years.

Ohio.—Wauseon, Fulton county: mean temperature, 65°.5, is 4°.8 below the August average of thirteen years. The highest August mean temperature of that period, 72°.8, occurred in 1872; the lowest, 63°.0, occurred in 1870.

Pennsylvania.—Dyberry, Wayne county: mean temperature, 62°.4, is 2°.9 below the August average of sixteen years. During that period the highest August mean temperature, 71°.7, occurred in 1878; the lowest, 59°.2, occurred in 1866. The extremes for August, 1883, are: maximum 87°; minimum 37°; and the August extremes for the last sixteen years are: maximum 92° in 1874, and on two dates in 1881; minimum 37° in 1874 and 1883.

Texas.—New Ulm, Austin county: mean temperature, 83°.5, is 1°.3 above the August average of the last twelve years. During that period the highest August mean, 84°.4, occurred in 1874; the lowest, 79°.4, occurred in 1882.

Vermont.—Woodstock, Windsor county: mean temperature, 63°.7, is 1°.3 below the August mean of the last sixteen years. The highest August mean of that period, 68°.4, occurred in 1877; the lowest, 60°.7, occurred in 1869.

Virginia.—Variety Mills, Nelson county: mean temperature, 70°.8, is 3°.1 below the August mean of the last six years.

West Virginia.—Helvetia, Randolph county: mean temperature, 66°.5, is 1°.4 below the August average of the last seven years.

MONTHLY RANGES OF TEMPERATURE.

The following are the largest monthly ranges of temperatures reported during the month:

Fort Custer, Montana, 65°; Dayton, Washington Territory, 64°; Fort Buford, Dakota, 60°; Fort Shaw, Montana, 57°; Coeur d'Alene, Idaho, and Spokane Falls, Washington Territory, 57°; Fort Bennett, Dakota, 56°; Cheyenne, Wyoming, 54°; Fort Benton, Montana, 54°; Fort Meade, Dakota, 52°; Helena, Montana, 49°; Huron, Dakota, West Las Animas, Colorado, and Los Angeles, California, 48°.

The smallest monthly ranges are: New Orleans, Louisiana, 19°; Galveston, Texas, 20°; Key West, Florida, 21°; Cape Mendocino, California, and Pike's Peak, Colorado, 22°; Pensacola, Florida, and Delaware Breakwater, Delaware, 23°; Jacksonville, Florida, and Indianola, Texas, 24°; Hatteras, North Carolina, and Block Island, Rhode Island, 25°; and 28° at the following stations: Barnegat, New Jersey; Ocean city, Maryland; Fort Macon, North Carolina; Sanford, Florida.

GREATEST DAILY RANGES OF TEMPERATURE.

The greatest daily ranges of temperature have varied in the different districts as follows:

New England.—From 17° on the summit of Mount Washington, New Hampshire, on the 24th, to 30° at Boston, Massachusetts, on the 13th, and at New Haven, Connecticut, on the 31st.

Middle Atlantic states.—From 19° at Barnegat city, New Jersey, on the 13th, to 28° at Cape Henry, Virginia, on same date.

South Atlantic states.—From 16° at Fort Macon, North Carolina, on the 1st, to 24° at Charlotte and Smithville, North Carolina, on the 13th and 31st, respectively.

Florida peninsula.—From 17° at Key West, on the 31st, to 22° at Sanford on the 23d.

Eastern Gulf.—From 16° at New Orleans, Louisiana, on the 9th, to 25° at Vicksburg, Mississippi, on the 31st, and at Mobile and Montgomery, Alabama, on the 22d and 31st, respectively.

Western Gulf.—From 17° at Galveston, Texas, on the 8th and 29th, to 34° at Fort Smith, Arkansas, on the 30th.

Tennessee.—From 22° at Chattanooga, on the 12th and 17th, to 29° at Knoxville, on the 31st.

Ohio valley.—From 22° at Cincinnati, Ohio, on the 21st, to 27° at Columbus, Ohio, on the 26th.

Lower lakes.—From 22° at Sandusky, Ohio, on the 12th and 19th, to 34° at Oswego, New York, on the 22d.

Upper lakes.—From 21° at Chicago, Illinois, on the 25th, to 32° at Alpena, Michigan, on the same date.

Extreme northwest.—From 40° at Saint Vincent, Minnesota, on the 24th, to 44° at Fort Buford, Dakota, on the 23d.

Upper Mississippi valley.—From 20° at Cairo, Illinois, on the 26th, to 33° at Saint Paul, Minnesota, on the 23d.

Missouri valley.—From 24° at Omaha, Nebraska, on the 22d, to 43° at Fort Bennett, Dakota, on the 23d and 24th.

Northern slope.—From 30° at North Platte, Nebraska, on the 29th, to 50° at Fort Custer, Montana, on the 23d.

Middle slope.—From 17° on the summit of Pike's Peak, Colorado, on the 10th and 15th, to 42° at West Las Animas, Colorado, on the 24th.

Southern slope.—From 32° at Coleman City, Texas, on the 1st, to 41° at Fort Stockton, Texas, on the 30th.

Table of Comparative Maximum Temperatures for the Month of August.

State or Territory.	Maximum for August, 1883, Signal Service.		Maximum since Signal-Service stations were opened—3 to 12 years.			Highest from any other source.			
	Station.	Temp.	Station.	Temp.	Year.	Place.	Temp.	Year.	Length of Record
Alabama	Mobile	99	Montgomery	103	1874	Mount Vernon Arsenal	104	1860	31 years.
Arizona	Yuma	111	Yuma	115	1879	Fort Mojave	119	1875	22 "
Arkansas	Fort Smith	100	Little Rock	102	1881	Fort Smith	102	1800	41 "
California	Red Bluff	101	Red Bluff	110	1878	Fort Yuma	117	1879	32 "
Colorado	West Las Animas	100	Denver	105	1878	Fort Lyon	108	1868, '69	21 "
Connecticut	New Haven	85	New Haven	50	73, '76, '81	New Haven	98	1864	87 "
Dakota	Yankton	98	Smithville	112	1881	Fort Randall	108	1863	22 "
Do	Fort Buford	96	Fort Sully	107	1876	Fort Lincoln	110	1870	12 "
Delaware	Delaware Breakwater	87	Delaware Breakwater	93	1881	Fort Delaware	101	1865	44 "
District of Columbia	Washington	94	Washington	101	74, '81	Washington	101	1868	48 "
Florida	Sanford	97	Jacksonville	100	1874	Fort Barrancas	103	1878	60 "
Do	Key West	95	Lake City	99	1874	Fort King	106	1833	10 "
Georgia	Augusta	95	Augusta	105	1878	Augusta Arsenal	100	1845	51 "
Do	Savannah	95	Savannah	100	1878	McPherson Barracks	101	77, '81	7 "
Idaho	Fort Lapwai	108	Boise City	103	1879	Fort Boise	121	1871	17 "
Do	Coeur d'Alene	96	Fort Lapwai	115	1882	Fort Lapwai	103	1871	11 "
Illinois	Cairo	92	Springfield	100	1881	Anna	109	1881	5 "
Do	Springfield	90	Cairo	103	1881	Chicago	102	1868	48 "
Indiana	Indianapolis	91	Indianapolis	101	1881	Lacoma	105	1881	7 "
Do						Vevay	104	1881	13 "
Indian Territory	Fort Supply	95	Fort Gibson	106	1874	Fort Gibson	116	1834	53 "
Do			Fort Supply	107	1881	Fort Sill	109	1871	3 "
Iowa	Dubuque	92	Des Moines	103	1881	Fort Madison	103	1870	22 "
Do	Des Moines	91	Keokuk	102	1873	Muscatine	104	1881	43 "
Kansas	Leavenworth	93	Leavenworth	107	1874	Fort Riley	108	1800	25 "
Do			Dodge City	102	1881	Fort Leavenworth	106	1881	51 "
Kentucky	Louisville	94	Louisville	105	1881	Newport Barracks	96	1870	28 "
Louisiana	New Orleans	92	Shreveport	105	1881	Baton Rouge	102	60, 77	55 "
Do			New Orleans	95	74, 77	Point Pleasant	104	1881	7 "
Maine	Portland	87	Portland	95	1870	Brunswick	98	1881	53 "
Maryland	Baltimore	92	Baltimore	98	1881	Fort McHenry	100	34, 49, 72	50 "
Massachusetts	Boston	92	Boston	97	1881	Amherst	98	1864	45 "
Do	Provincetown	90	Springfield	93	79, '81	New Bedford	91	1818	69 "
Michigan	Port Huron	90	Detroit	99	1881	Marquette	100	1881	22 "
Do	Detroit	89	Port Huron	96	1881	Thornville	101	1881	3 "
Minnesota	Saint Paul	88	Breckenridge	101	1876	Fort Ridgely	102	1861	11 "
Do	Saint Vincent	82	Saint Paul	98	1880	Fort Snelling	97	1838	62 "
Mississippi	Vicksburg	96	Vicksburg	100	1878	Columbus	99	1881	10 "
Do						Brookhaven	100	1875	5 "
Missouri	Saint Louis	97	Saint Louis	106	1881	Saint Louis	108	1834	48 "
Montana	Fort Custer	101	Fort Benton	108	1881	Fort Ellis	112	1875	14 "
Nebraska	North Platte	92	Omaha	105	1874	Fort McPherson	110	1870	15 "
Nevada	Winnemucca	102	Winnemucca	102	1882	Camp Halleck	106	1875	14 "
New Hampshire	Mount Washington	58	Mount Washington	72	1870	Auburn	100	1870	5 "
Do	Little Egg Harbor	92	Sandy Hook	93	1881	Atco	100	1881	7 "
New Jersey	Atlantic City	91	Little Egg Harbor	98	1882	Vineland	100	1881	7 "
Do	Fort Bayard	98	La Mesilla	107	1878	Fort Bascom	108	1870	6 "
New Mexico	Oswego	89	Oswego	97	1881	Auburn	110	1801	39 "
New York	Wilmington	96	Charlotte	101	1881	Fort Johnson	101	1876	56 "
North Carolina	Charlotte	94	Wilmington	99	1878	Weldon	107	1881	7 "
Do	Cleveland	92	Cincinnati	101	1881	Cincinnati	100	1881	38 "
Ohio	Columbus	92	Cleveland	99	1881	Bellevue	104	1881	7 "
Oregon	Roseburg	86	Umatilla	110	1882	Fort Dalles	104	1853	10 "
Pennsylvania	Erie	92	Pittsburg	100	1881	Mount Joy	105	1809	9 "
Do	Philadelphia	90	Philadelphia	90	1881	Philadelphia	98	1881	123 "
Rhode Island	Narragansett Pier	85	Newport	87	76, 79	Providence	95	1866	35 "
South Carolina	Charleston	90	Charleston	98	1881	Charleston	90	1752	104 "
Tennessee	Memphis	94	Nashville	104	1874	Humboldt	104	70, 74	4 "
Texas	Fort Concho	103	Rio Grande City	108	1876	Fort Clarke	113	1871	25 "
Utah	Salt Lake City	94	Salt Lake City	101	1875	Camp Douglas	105	1871	25 "
Do						Mount Carmel	100	1777	7 "
Vermont			Burlington	97	1876	Lunenburg	100	1804	20 "
Do						Charlotte	102	76, 81	6 "
Virginia	Lynchburg	95	Lynchburg	100	1881	Alexandria	104	1813	11 "
Do	Cape Henry	94	Cape Henry	103	1881	Fortress Monroe	99	1881	56 "
Washington	Dayton	100	Albino	109	1882	Fort Walla Walla	107	59, 60	12 "
West Virginia			Morgantown	92	74, '81	Flemington	93	1881	1 "
Wisconsin	La Crosse	89	Milwaukee	98	1874	Fort Howard	100	23, 29, 30	30 "
Wyoming	Cheyenne	90	Cheyenne	95	1881	Fort Laramie	107	1876	27 "
Do			Fort Washakie	103	1882	Fort Fetterman	107	1869	5 "

Southern plateau.—From 26° at Fort Grant, Arizona, on the 31st, to 40° at Fort Apache, Arizona, on the 13th and 30th.

Northern plateau.—From 42° at Spokane Falls, Washington Territory, on the 15th, to 50° at Dayton, Washington Territory, on the 19th.

North Pacific coast.—From 27° at Olympia, Washington Territory, on the 27th, to 32° at Portland, Oregon, on the 26th.

Middle Pacific coast.—From 21° at Cape Mendocino, California, on the 6th, to 38° at Sacramento, California, on the 2d.

South Pacific coast.—From 34° at Yuma, Arizona, on the 14th, to 38° at Los Angeles, California, on the 6th.

Table of Maximum and Minimum Temperatures for August, 1883.

State or Territory.	Signal Service.			U. S. Army Post Surgeons, or Voluntary Observers.		
	Station.	Max.	Min.	Station.	Max.	Min.
Alabama	Mobile	99	68	Birmingham	99	56
Do	Montgomery	97	65	Tuscaloosa	97	47
Arizona	Yuma	111	74	Texas Hill	119	82
Do	Fort Apache	92	50	Fort Bowie	96	61
Arkansas	Fort Smith	100	61	Lead Hill	102	56
Do	Little Rock	98	62	Mount Ida	90	50
California	Red Bluff	101	56	Whitewater	113	80
Do	Cape Mendocino	68	47	Summit	75	42
Colorado	West Las Animas	100	52	Fort Lyon	101	51
Do	Pike's Peak	53	31	Fort Garland	82	38
Connecticut	New Haven	85	48	Southington	89	46
Dakota	Yankton	98	42	Fort Randall	99	40
Do	Fort Buford	96	36	Fort Meade	98	38
Delaware	Del. Breakwater	87	64	West Washington	95	52
District of Columbia	Washington	94	55	Limona	99	70
Florida	Sanford	97	69	Live Oak	100	62
Do	Pensacola	92	70	Way Cross	105	64
Georgia	Augusta	96	63	Toccoa	97	51
Do	Atlanta	91	60	Fort Lapwal	108	38
Idaho	Fort Lapwal	108	36	Mattoon	96	52
Illinois	Cairo	92	61	Polo	90	43
Do	Chicago	89	54	Clinton	95	46
Indiana	Indianapolis	91	53	Spiceland	91	46
Do	Fort Supply	95	59	Fort Reno	96	57
Indian Territory	Dubuque	92	49	Fort Madison	98	52
Iowa	Ica Moines	91	48	Nora Springs	88	42
Do	Leavenworth	93	53	Fort Scott	97	61
Kansas	Louisville	94	58	Holton	94	46
Do	New Orleans	92	74	Frankfort	93	47
Kentucky	Portland	87	48	Conshatta	103	56
Louisiana	Baltimore	92	59	Orono	84	36
Maine	Ocean City	85	57	McDonogh	94	45
Maryland	Boston	92	48	Woodstock	92	50
Do	Provincetown	90	53	Milton	98	47
Massachusetts	Port Huron	90	48	Rowe	84	37
Do	Marquette	88	35	Thornville	94	52
Michigan	Saint Vincent	82	39	Harrisville	93	33
Do	Saint Paul	88	46	Minneapolis	94	50
Minnesota	Vicksburg	96	65	Fort Snelling	96	42
Do	Saint Louis	97	58	Meridian	103	48
Mississippi	Centerville	94	47	Greenfield	98	56
Missouri	Fort Custer	101	36	Fort Keogh	103	36
Do	Fort Shaw	90	33	Fort Ellis	93	26
Montana	Omaha	91	52	Fort Niobrara	102	40
Nebraska	Hot Springs	103	46	Fort Robinson	94	37
Do	Boca	88	38	Fort Union	85	42
Nevada	Grafton	88	35	North Volney	92	53
Do	Moorestown	94	54	Johnstown	88	34
New Hampshire	Phillipsburg	84	46	Chapel Hill	101	53
New Jersey	Lordsburg	100	70	Highlands	83	45
Do	Fort Union	85	42	College Hill	99	54
New Mexico	North Volney	92	53	Wauseon	93	41
Do	Johnstown	88	34	Fort Klamath	90	35
New York	Chapel Hill	101	53	Eola	87	55
Do	Highlands	83	45	Granplan Hills	94	44
North Carolina	College Hill	99	54	Dyberry	87	37
Do	Wauseon	93	41	Stateburg	95	60
Ohio	Fort Klamath	90	35	Andersonville	94	50
Do	Eola	87	55	Grassy Cove	89	43
Oregon	Granplan Hills	94	44	Cuero	106	68
Do	Dyberry	87	37	Paris	103	61
Pennsylvania	Stateburg	95	60	Corinne	105	65
Do	Andersonville	94	50	Ogden	102	44
Rhode Island	Grassy Cove	89	43	Charlotte	90	50
South Carolina	Cuero	106	68	Woodstock	89	36
Tennessee	Paris	103	61	Johnsontown	95	64
Do	Corinne	105	65	Wytheville	86	45
Texas	Ogden	102	44	Fort Spokane	100	35
Do	Charlotte	90	50	Helvetia	88	43
Utah	Woodstock	89	36	Lancaster	91	44
Do	Johnsontown	95	64	Neilleville	90	41
Vermont	Wytheville	86	45	Fort Washakie	92	32
Do	Fort Spokane	100	35	Fort Bridger	88	26
Virginia	Helvetia	88	43			
Do	Lancaster	91	44			
Washington	Neilleville	90	41			
Do	Fort Washakie	92	32			
West Virginia	Fort Bridger	88	26			
Wisconsin						
Do						
Wyoming						
Do						

FROSTS.

Colorado.—Pike's Peak, 5th, 6th, 13th, 26th; Fort Collins, 20th, 22d, 23d.

Connecticut.—Southington, 28th.

Dakota.—Webster, 27th. At Fort Buford, a heavy frost occurred on the 27th, killing garden vegetables.

Indiana.—Griffin station, 24th; Wabash, 24th, 25th.

Iowa.—Dubuque, 4th; Nora Springs, 22d, 23d; Cresco, 23d, Independence, 23d; Manchester, 23d, 24th.

Maine.—Cornish, 28th, 29th; Portland, 27th, 31st; Bangor, 29th; Orono, 29th.

Massachusetts.—Rowe, 27th, 28th; Westborough, 27th, 28th, 30th; Milton, 28th, 29th; Fall River, 30th.

Michigan.—East Tawas, 3d; Traverse City, 5th, 14th, 15th; Marquette, 14th; Escanaba, 14th, 15th; Alpena, 14th, 15th, 27th; Lansing, 25th, 26th; Ionia, 27th; Northport, 27th.

Montana.—Fort Maginnis, 22d; Fort Shaw, 22d; Poplar River, 22d. At Fort Custer, all vegetables in the post garden were injured by the heavy frost of the 22d.

Nebraska.—Clear Creek: the light frost of the morning of the 23d caused slight injury to vegetables.

Nevada.—Carson City: frost occurred here on the morning of the 13th, killing garden vegetables. Frosts also occurred here on the 20th, 21st, 22d.

New Hampshire.—Mount Washington, 7th, 14th to 17th, 26th to 31st. At Grafton, the first killing frost occurred on the mornings of the 27th and 28th.

New York.—Factoryville, 7th, 27th; Palermo, 27th; Friendship, 27th; Humphrey, 28th; Menand station (near Albany), 28th. Kiantone: frost occurred in this locality on the 27th, causing serious injury to corn and other crops.

Pennsylvania.—Wellsboro', 7th, 8th, 27th; Dyberry, 7th, 8th, 25th to 28th. Erie: frost occurred in the southern part of Erie county on the morning of the 26th, which proved destructive to the buckwheat crop. In the French valley, fourteen miles north of Erie, many acres of corn were ruined.

Utah.—Nephi, 20th.

Vermont.—Woodstock, 15th, 20th, 27th; Strafford, 27th; Saint Johnsbury, 28th.

Wisconsin.—Neillsville, 23d; Lancaster, 24th.

ICE.

Mount Washington, New Hampshire: ice formed in pools to a thickness of three-fourths of an inch on the 27th.

Wabash, Indiana: ice was reported to have formed in this locality on the morning of the 24th.

PRECIPITATION.

[Expressed in inches and hundredths.]

The distribution of rainfall over the United States and Canada for the month of August, 1883, as determined from reports from more than six hundred stations, is exhibited on chart iv.

The rainfall for August, 1883, has been below the average over the whole country, with the exception of the extreme north-west, and the northern and middle slopes. The deficiencies are marked in the districts on the Atlantic and Gulf coasts, and also in the upper lake region, upper Mississippi and Ohio valleys. In the lower lake region, Missouri valley, and Tennessee, the deficiencies are small and vary from 0.29 in the Missouri valley, to 0.61 in the lower lake region. In the Atlantic and Gulf states, from Virginia to Texas, the rainfall for the preceding month was below the average, and the small average precipitation in the same states during August has not been sufficient to terminate the drought which prevailed during July.

In the first column of the following table is given the average rainfall for August in the various districts for several years; in the second column is given the average of August, 1883; and the third column shows the excess or deficiency of August, 1883, as compared with the average of that month in previous years: